

REMARKS

Reconsideration of the application is requested.

Claims 1-17 are now in the application. Claims 1-17 are subject to examination. Claim 1 has been amended. Claim 17 has been added.

In item 2 on pages 2-3 of the above-identified Office Action, claims 1-7 and 10 have been rejected as being fully anticipated by U.S. Patent No. 6,732,027 to Betters et al. (hereinafter Betters) under 35 U.S.C. § 102.

Betters teaches a system for analyzing aircraft data for preventative maintenance and for predicting future maintenance needs. The data to be analyzed is collected from aircraft operational sources at periodic intervals. For instance, column 12, lines 46-49, of Betters suggests downloading the data every other day. In general, Betters downloads aircraft data on a periodic basis by connecting electrical cables to the aircraft, while grounded, after every x flights and hosts the data on a centralized computer where it can be accessed for evaluation. The data is then available in real-time to the consumer (e.g. maintenance personal) but the data is not collected from the aircraft in real-time. To be available from the aircraft in real-time

requires that the aircraft data be transmitted immediately after generation. This clearly is not done nor taught in Betters.

In contrast, claim 1 of the instant application recites that the "capturing and generating data of an event or condition of the aircraft in real time". The Examiner claims that the Abstract of Betters teaches this. This is not believed to be true. There is no generation and capturing of data of an event or condition of the aircraft as it happens on the aircraft in Betters. As stated above the data is downloaded and stored on a server after the flight. This data is then available to the consumer for analysis. Although we believe claim 1 clearly recites the argued timing, claim 1 has been amended to make it clearer. Support for the change is provided on pages 37 and 38 of the instant application.

One purpose of the invention is to either replace the black boxes on the aircraft or to make the black boxes be a redundant system. In addition to or instead of the operational data of the aircraft being stored for latter analysis (e.g. as in Betters), the data is immediately transmitted to a ground station for immediate review in real-time as the event is actually happening in the aircraft or vehicle. Simply put, Betters does not do this. Betters

recreates the conditions but does not do them in real-time
(as they occur).

Claim 10 of the instant application states "said ground-based computer in real time animating a control instrument panel in response to the alert signal". The Examiner states that Betters does the same function. We disagree and perhaps an example would highlight our argument best. For example, if an aircraft is experiencing an unprecedented loss of altitude (e.g. descending beyond given parameters), an alert signal is generated by the ground computer and the ground computer animates the aircraft control instrument panels as they are happening in the aircraft from the real-time streaming data. In this manner experienced ground personnel can assist the pilot in the crisis situation as they visually see the same instrument readings as the pilot. Unless this is being done in real-time (as the situation occurs), the assistance may be too late. This certainly is the case in Betters where analysis of the data would not be possible if the aircraft crashed and the data was lost or only after the aircraft landed and the situation was later simulated for analysis. Perhaps the applicant and the Examiner are disagreeing over the definition of "real-time" and some alternative wording would be appropriate but we ask the Examiner what wording says it better than "real-time"?

In item 3 on pages 3-5 of the above-identified Office Action, claims 1-16 have been rejected as being fully anticipated by U.S. Patent No. 6,545,601 to Monroe (hereinafter Monroe) under 35 U.S.C. § 102.

Monroe teaches a comprehensive surveillance/communication system for monitoring a vehicle either in port or in service. The system permits a ground station to monitor and/or determine the identity, location and heading of a vehicle. In addition, the system places sensors (e.g. cameras, communication recorders, GPS recorder, motion detectors, infrared detectors, laser range finders, etc.) throughout critical areas of the vehicle and monitors the sensor information for analyzing emergency conditions such as a security violation. Monroe does teach real-time feedback in which the placed cameras and communication recorders can provide real-time feedback for analysis and real-time awareness. Monroe further teaches alerting ground personal and coordinating the emergency response personal to assist in an emergency situation due to the live video and audio feed taught in Monroe. The primary object of Monroe is to provide the means and apparatus for a comprehensive, multi-media, wireless surveillance and monitoring system for monitoring

and tracking a commercial transport vehicle while in port or in route.

The system sounds an alarm if a security type situation occurs such as a fuel truck coming too close to an aircraft or smoke detected on the aircraft.

However, Monroe is not believed to teach transmitting all operational data normally stored in the aircraft black boxes and if necessary simulate the situation in the cockpit to a ground controller to assist in emergency situations. See pages 37 and 38 of the instant application. In Monroe security situations are monitored in real-time and may be watched, but nowhere is Monroe believed to teach animating the information. Claim 10 of the instant application recites "animating a control instrument panel in response to the alert signal". Admittedly, Monroe displays certain real-time video and audio information but Monroe is not believed to recite "animating a control instrument panel in response to the alert signal" from the real-time streaming data.

It is further noted that transmitting the heavy amount of video information taught in Monroe requires a large bandwidth and is impractical for an aircraft in flight.

In summary, Monroe teaches adding a significant amount of sensors to the aircraft and sending this information to a ground station. This addition equipment (e.g. sensors, etc.) adds significant cost and complexity to the system taught in Monroe. The information contains a heavy amount of video information which requires a large bandwidth for transmission. In contrast, the invention of the instant application teaches transmitting information normally stored in the black boxes and requires little bandwidth as compared to the invention in Monroe. In addition, the invention of the instant application teaches and claims animating the aircraft control instrument panel which is not taught in Monroe.

Claim 17 has been added to the application. Claim 17 is a combination of the second and third paragraphs from original claim 3 and selected parts of the last paragraph of claim 10.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 or 10. Claims 1 and 10 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1 or 10.

Appl. No. 10/814,309
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Reply to Office Action of December 16, 2004

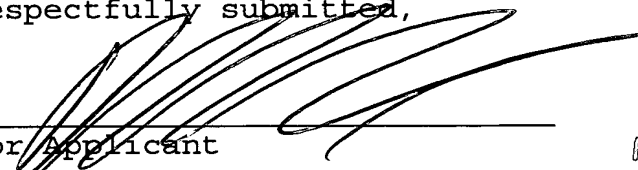
In view of the foregoing, reconsideration and allowance of claims 1-17 are solicited.

Petition for extension is herewith made. The extension fee for response within a period of one month pursuant to Section 1.136(a) in the amount of \$60.00 in accordance with Section 1.17 is enclosed herewith.

If an extension of time is required, petition for extension is herewith made. Any extension fee associated therewith should be charged to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



For Applicant

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REL:cgm

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